

SEQUENCE LISTING

(1) GENERAL INFORMATION:
 (iii) NUMBER OF SEQUENCES: 5
 (2) INFORMATION FOR SEQ ID NO: 1:
 5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 323 amino acids
 (B) TYPE: amino acid
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: protein
 10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
 TyrSerArgG luLysAsnGlnProLysProSerProLysArgGluSer
 151015
 GlyGluGluPheArgMetGluLysLeuAsnGlnLeuTrpGluLysAla
 20 2530
 15 GlnArgLeuHisLeuProProValArgLeuAlaGluLeuHisAlaAsp
 354045
 LeuLysIleGlnGluArgAspGluLeuAl aTrpLysLysLeuLysLeu
 505560
 AspGlyLeuAspGluAspGlyGluLysGluAlaArgLeuIleArgAsn
 20 657075 80
 LeuAsnValIleLeuAlaLysTyrGlyLeuAspGlyLysLysAspAla
 859095
 ArgGlnValThrSerAsnSerLeuSerGlyThrGlnGluAspGly Leu
 100105110
 25 AspAspProArgLeuGluLysLeuTrpHisLysAlaLysThrSerGly
 115120125
 LysPheSerG lyGluGluLeuAspLysLeuTrpArgGluPheLeuHis
 130135140
 HisLysGluLysValHisGluTyrAsnValLeuLeuGluThrLeuSer
 30 145150 155160
 ArgThrGluGluIleHisGluAsnValIleSerProSerAspLeuSer
 165170175
 AspIleLysGlySerValLeuHisSe rArgHisThrGluLeuLysGlu
 180185190
 35 LysLeuArgSerIleAsnGlnGlyLeuAspArgLeuArgArgValSer
 195200 205
 HisGlnGlyTyrSerThrGluAlaGluPheGluGluProArgValIle
 210215220
 AspLeuTrpAspLeuAlaGlnSerAlaAsnLeuThrAspLysGluLeu
 40 225 230235240
 GluAlaPheArgGluGluLeuLysHisPheGluAlaLysIleGluLys
 245250255
 HisAsnH istYrGlnLysGlnLeuGluIleAlaHisGluLysLeuArg
 260265270
 45 HisAlaGluSerValGlyAspGlyGluArgValSerArgSerArgGlu
 275 280285
 LysHisAlaLeuLeuGluGlyArgThrLysGluLeuGlyTyrThrVal
 290295300
 LysLysHisLeuGlnAspLeuSerGlyArgIleSe rArgAlaArgHis
 50 305310315320
 AsnGluLeu
 (2) INFORMATION FOR SEQ ID NO: 2:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 209 amino acids
 55 (B) TYPE: amino acid
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: protein
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
 ProArgLeuGluLysLeuTrpHisLysAlaLysThrSerGlyLysPhe
 60 151015
 SerGlyGluGluLeuAspLysLeuTrpArgGluPheLeu HisHisLys

202530
 GluLysValHisGluTyrAsnValLeuLeuGluThrLeuSerArgThr
 354045
 GluGluIleHisGluAsnValIleSerProSerAspLeuSerAspIle
 5 505560
 LysGlySerValLeuHisSerArgHisThrGluLeuLysGluLysLeu
 657 07580
 ArgSerIleAsnGlnGlyLeuAspArgLeuArgArgValSerHisGln
 859095
 10 GlyTyrSerThrGluAlaGluPheGluGluProArgValIleAspLeu
 100105110
 TrpAspLeuAlaGlnSerAlaAsnLeuThrAspLysGluLeuGluAla
 115120 125
 PheArgGluGluLeuLysHisPheGluAlaLysIleGluLysHisAsn
 15 130135140
 HisTyrGlnLysGlnLeuGluIleAlaHisGluLysLeuArgHisAla
 145150155160
 GluSerValGlyAspGlyGluArgValSerArgSerArgGluLysHis
 165170175
 20 AlaLeuLeuGluGlyArgThrLysGluLeuGlyTyrThrValLysLys
 180185190
 HisLeuGlnAspLeuSerGlyArgIleSerArgAlaArgHisAsnGlu
 19 5200205
 Leu
 25 (2) INFORMATION FOR SEQ ID NO: 3:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 33 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 30 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: DNA (oligonucleotide)
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
 CCGCGTGGAT CCCCAGGCTGGAAAAGCTGTGG33
 (2) INFORMATION FOR SEQ ID NO: 4:
 35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 35 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 40 (ii) MOLECULE TYPE: DNA (oligonucleotide)
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
 TCAATGAATTCTCAGAGTT CGTTGTGCCGAGCTCT35
 (2) INFORMATION FOR SEQ ID NO: 5:
 45 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 205 amino acids
 (B) TYPE: amino acid
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: protein
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
 50 ProArgLeuGluLysLeuTrpHisLysAlaLysThr SerGlyIleSer
 151015
 ValArgLeuThrSerCysAlaArgValLeuHisTyrLysGluLysIle
 2025 30
 HisGluTyrAsnValLeuLeuAspThrLeuSerArgAlaGluGluGly
 55 354045
 TyrGluAsnLeuLeuSerProSerAspMetThrHisIleLysSerAsp
 50 5560
 ThrLeuAlaSerLysHisSerGluLeuLysAspArgLeuArgSerIle
 65707580
 60 AsnGlnGlyLeuAspArg LeuArgLysValSerHisGlnLeuArgPro
 859095

AlaThrGluPheGluGluProArgValIleAspLeuTrpAspLeuAla
 100 105110
 GlnSerAlaAsnPheThrGluLysGluLeuGluSerPheArgGluGlu
 115120125
 5 LeuLysHisPheGluAlaLysIleGluLysHisAsn HisTyrGlnLys
 130135140
 GlnLeuGluIleSerHisGlnLysLeuLysHisValGluSerIleGly
 145150155160
 AspProGluHisIleSerArgAsnLysGluLysTyrValLeuLeuGlu
 10 165170175
 GluLysThrLysGluLeuGlyTyrLysValLysLysHisLeuGlnAsp
 180185190
 LeuSerSerArgValSerArgAlaArgHisAsnGluLeu
 195200

The above description is meant to be illustrative of the present invention, and not limiting
 thereof. All explanations of the inventors theory of the invention are for illustrative purposes
 only. It is the inventors' intention that the scope of their invention be defined solely by the
 following claims.

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